

G. Mockups: Build mockups of each of the three types of wall panels to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution.

1. Build mockups of typical corner wall panel condition **including soffit**, in location to be determined by Resident Engineer and Architect; approximately 96 inches square by full thickness, including insulation, supports, attachments, and accessories.
  - a. Include four-way joint for metal-faced composite wall panels.
2. Approval of mockups is for other material and construction qualities specifically approved by Resident Engineer in writing.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless such deviations are specifically approved by Resident Engineer in writing.

#### 1.01 PRODUCT SUBSTITUTIONS

A. Substitutions: Substitutions permitted.

#### 1.02 COMPOSITE METAL PANEL MATERIALS

A. Composite Metal Panels:

1. Core: Thermoplastic material that meets performance characteristics specified when fabricated into composite assembly.
2. Face Sheets: Aluminum alloy 3105 H14, 0.020 inch (0.51 mm) thick and as follows: [Choose coil or spray as applicable to quantity].
  - a. Coil coated with a fluoropolymer paint finish that meets or exceeds values expressed in AAMA 2605 where relevant to coil coatings.
  - b. Thermally bonded in a continuous process, under tension, to the core material.
3. Bond Integrity: Tested for resistance to delamination as follows:
  - a. Peel Strength (ASTM D1781): 22.5 in-lb/in (100 N-m/m) minimum.
  - b. No degradation in bond performance after 8 hours of submersion in boiling water and after 21 days of immersion in water at 70 degrees F (21 degrees C).
4. Fire Performance:
  - a. Flamespread (ASTM E84): 25 maximum (4 and 6 mm).
  - b. Smoke Developed (ASTM E84): 450 maximum (4 and 6 mm).
  - c. Surface Flammability (Modified ASTM E108): Pass (4 and 6 mm).
  - d. V-O Rating (4 mm): Comply with UL 94.

B. Production Tolerances:

1. Width: +/- 2 mm.

2. Length: +/- 4 mm.
3. Thickness (4 mm Panel): +/- 0.008 inch (0.2 mm).
4. Thickness (6 mm Panel): +/- 0.012 inch (0.3 mm).
5. Bow: Maximum 0.5% length or width.
6. Squareness: Maximum 0.2 inch (5 mm).
7. Edges of sheets shall be square and trimmed.

C. Panel Thickness: 1/4"[6 mm].

#### 1.03 ACCESSORIES

- A. General: Provide fabricator's standard accessories, including fasteners, clips, anchorage devices and attachments.

#### 1.04 RELATED MATERIALS

- A. General: Refer to other related sections for related materials, including cold-formed metal framing, flashing and trim, joint sealers, aluminum windows, glass and glazing and curtain walls.

#### 1.05 FABRICATION

- A. General: Shop fabricate to sizes and joint configurations indicated on the drawings.
1. Where final dimensions cannot be established by field measurements, provide allowance for field adjustment as recommended by the fabricator.
  2. Form panel lines, breaks and angles to be sharp and true, with surfaces that are free from warp or buckle.
  3. Fabricate with sharply cut edges, with no displacement of aluminum sheet or protrusion of core.

#### 1.06 FINISHES

- A. Factory Finish: A fluoropolymer paint finish that meets or exceeds values expressed in AAMA 2605 where relevant to coil coatings.

#### 1.07 SOURCE QUALITY

- A. Source Quality: Obtain composite panel products from a single manufacturer.

### PART 2 EXECUTION

#### 2.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions.

#### 2.02 EXAMINATION

- A. Site Verification of Conditions: Verify that substrate conditions are acceptable for product installation.

## 2.03 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

## 2.04 INSTALLATION

### A. General:

1. Install panels plumb, level and true, in compliance with fabricator's recommendations.
2. Anchor panels securely in place, in accordance with fabricator's approved shop drawings.
3. Comply with fabricator's instructions for installation of concealed fasteners and with provisions of Section 07 90 00 for installation of joint sealers.
4. Installation Tolerances: Maximum deviation from horizontal and vertical alignment of installed panels: 0.25 inch (6.4 mm) in 20 feet (6.1 m), non-cumulative.

## 2.05 FIELD QUALITY REQUIREMENTS

Specifier Note: Edit Paragraph below. Establish number and duration of periodic site visits with Owner and fabricator, and specify below. Consult fabricator for services required. Coordinate Paragraph below with Division 01 Quality Assurance Section. Delete if fabricator's field service not required.

- A. Fabricator's Field Services: Upon Owner's request, provide fabricator's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with fabricator's instructions.

## 2.06 ADJUSTING

### A. Adjusting:

1. Repair panels with minor damage such that repairs are not discernible at a distance of 10 feet (3.1 m).
2. Remove and replace panels damaged beyond repair.
3. Remove protective film immediately after installation of joint sealers and immediately prior to completion of composite metal panel work.
4. Remove from project site damaged panels, protective film and other debris attributable to work of this section.

## 2.07 CLEANING

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to

Owner's acceptance. Remove construction debris from project site and legally dispose of debris.

## **2.08 PROTECTION**

A. Protection: Protect installed product's finish surfaces from damage during construction.

1. Institute protective measures as required to ensure that installed panels will not be damaged by work of other trades.

## **2.09 SOURCE QUALITY**

A. Source Quality: Obtain composite panel products from a single manufacturer.

## **PART 3 EXECUTION**

### **3.01 MANUFACTURER'S INSTRUCTIONS**

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions.

### **3.02 EXAMINATION**

A. Site Verification of Conditions: Verify that substrate conditions are acceptable for product installation.

### **3.03 PREPARATION**

A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

### **3.04 INSTALLATION**

A. General:

1. Install panels plumb, level and true, in compliance with fabricator's recommendations.
2. Anchor panels securely in place, in accordance with fabricator's approved shop drawings.
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